

ALLOWANCE

EXAMINER'S AMENDMENT

1. **Cancelled**
2. **(Currently amended)** Method according to claim 21, wherein the said injected gas is hydrogen or helium.
3. **(Currently amended)** Method according to claim 21, wherein the injected gas contains nitrogen and said third content of hydrogen gas and each gas issues separately and directly from an industrial process without any prior mixing step.
4. **(Currently amended)** Method according to claim 3, wherein the said injected gas containing nitrogen and hydrogen is an ammonia cracking gas.
5. **(Currently amended)** Method according to claim 21, wherein the said nitrogen gas is introduced into the chamber solely outside the said cooling zone(s) having the second gas atmosphere.
6. **(Currently amended)** Method according to claim 21, wherein the nitrogen gas introduced into the chamber in step c is introduced into the chamber simultaneously outside and inside the said cooling zone(s) having the second gas atmosphere.
7. **Cancelled**
8. **(Currently amended)** Method according to claim 21, wherein the said second content of hydrogen and/or helium is between 5% and 25% by volume.
9. **(Currently amended)** Method according to claim 21, wherein the pressure in the chamber is 1 to 3 mbar greater than atmospheric pressure.

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10. (Currently amended) Method according to claim 21, wherein the method further comprises an induction of the gas from said cooling zone(s) having the said second protective gas atmosphere into a recirculation circuit, cooling the gas, and then putting the gas back into the chamber at least one zone from said recirculation circuit.

11. (Currently amended) Method according to claim 21, wherein the total flow of the gas from said introduction(s) and said injection(s) is 400 to 1000 Nm³/h and the flow of recirculated gas is 1000 to 5000 times the flow of the gas introduced and injected.

12. Cancelled

13. (Currently amended) Method according to claim 4, wherein the method comprises the said introduction of nitrogen into the chamber solely outside the said cooling zone(s) having the second gas atmosphere.

14. (Currently amended) Method according to claim 4, wherein the method comprises the said introduction of nitrogen into the chamber simultaneously outside and inside the said cooling zone(s) having the second gas atmosphere.

15. Cancelled

16. Cancelled

17. (Currently amended) Method according to claim 8, wherein the pressure in the chamber is 1 to 3 mbar greater than atmospheric pressure.

18. (Currently amended) Method according to claim 9, wherein the method further comprises an induction of the gas from said cooling zone(s) having the said second protective gas atmosphere into a recirculation circuit, cooling the gas, and then putting the gas back into the chamber at least one zone from said recirculation circuit.

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19. (Currently amended) Method according to claim 10, wherein the total flow of the gas from said introduction(s) and said injection(s) is 400 to 1000 Nm³/h and the flow of recirculated gas is 1000 to 5000 times the flow of the gas introduced and injected.

20. Cancelled

21. (Currently amended) A method for heat treating metallic strips inside a heat treatment chamber having a pressure greater than atmospheric pressure, and wherein said heat treatment chamber has no sealed partitions between zones in the heat treatment chamber, said method comprising:

- a. passing the strip through a heating zone of the chamber;
- b. moving the strip through at least one cooling zone of the chamber;
- c. establishing a first protective gas atmosphere containing nitrogen and a first content of hydrogen and/or helium where the said content is from 3% to 5% by volume, in the chamber but not in the said cooling zone(s);
- d. establishing a second protective gas atmosphere in the said cooling zone(s) by providing a gas containing nitrogen and a second content of hydrogen and/or helium wherein the said second content is greater than the said first content;
- e. providing at least one introduction of nitrogen into the chamber;
- f. providing at least one injection of a third protective gas containing a third content of hydrogen and/or helium and optionally including nitrogen into the said cooling zone(s) wherein the said third content is greater than the said second content,

whereby a gaseous exchange occurs between at least one zone of the said chamber having the first gas atmosphere and the said cooling zone(s) having the second atmosphere;

controlling the flow rate of the said introduction(s) of nitrogen and said injection(s) according to the gaseous exchange; and

obtaining the pressure in the chamber and the content of hydrogen and/or helium from said first and second protective gas atmospheres.

1. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
2. Authorization for this examiner's amendment was given in a telephone interview with Anne Kornbau on January 8th, 2008 (see Interview summary sheet).

Reasons for Allowance

3. The following is an examiner's statement of reasons for allowance:

Per the personal interview with Ms. Kornbau on January 8th, 2008 and subsequent phone calls regarding the proposed Examiner's amendment, the case is now in condition for allowance.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

The currently amended claims present in the Examiner's amendment (Claims 2-6, 8-11, 13-14, 17-19, and 21) are allowed.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark L. Shevin whose telephone number is (571)270-3588. The examiner can normally be reached on Monday - Thursday, 8:30 AM - 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vickie Kim can be reached on (571) 272-0579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark L Shevin
Examiner
Art Unit 4116

10-527,803
January 22nd, 2008

/Vickie Kim/

Supervisory Patent Examiner, Art Unit 4116